

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

Claim 1: (Cancelled).

2. (Currently Amended): A modified *Aspergillus nidulans* for producing penicillin, comprising a mutation in a polynucleotide encoding an isopenicillin N synthetase (IPNS) wherein the mutation produces the IPNS having the amino acid sequence of like SEQ ID NO:1 that has a 212Glu to 212Arg mutation at a position two amino acid residues upstream of a histidine residue at His214 which is an iron ligand of the IPNS wherein the mutation renders the IPNS dependent on bicarbonate as an activator to produce the penicillin.

Claims 3 - 10: (Cancelled).

11. (Currently Amended): An isolated DNA encoding an isopenicillin N synthetase (IPNS) wherein the isolated DNA encodes ~~comprises~~ an IPNS having the amino acid sequence of like SEQ ID NO:1 with an amino acid residue a ~~codon~~ 212Glu that has been modified to ~~encode~~ 212Arg and which is two amino acid residues ~~codons~~ upstream from the amino acid residue ~~codon~~ 214His Arg ~~that encodes a histidine residue~~ which is an iron ligand of the IPNS wherein the 212Arg renders the IPNS dependent on bicarbonate as an activator of the IPNS.

Claims 12 - 16: (Cancelled).

17. (Currently Amended): The isolated DNA of Claim 11 ~~any one of Claims 10, 11, 13 or 15~~ wherein the isolated DNA is from *Aspergillus nidulans*.

Claims 18 - 50: (Cancelled).